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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,513	10/06/2005	Yasushi Araki	Q90689	2406

23373 7590 04/16/2007  
SUGHRUE MION, PLLC  
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SUITE 800  
WASHINGTON, DC 20037

EXAMINER
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COLEMAN, WILLIAM D

ART UNIT	PAPER NUMBER
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2823

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/552,513	<b>Applicant(s)</b> ARAKI, YASUSHI	
	<b>Examiner</b> W. David Coleman	<b>Art Unit</b> 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/05</u> | 6) <input type="checkbox"/> Other: _____  |

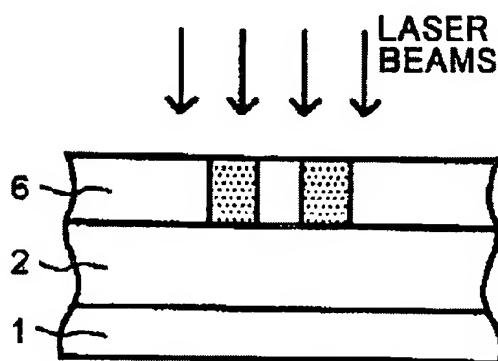
## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
2. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 102(a) as being anticipated by Okumura et al., U.S. Patent Application Publication No. U.S. 2002/0139972 A1.



3. Pertaining to claim 1, Okumura teaches a method for producing a substrate having a Si layer comprising the steps of forming an amorphous Si layer 6 on a plastic substrate 1, and irradiating said amorphous Si layer with a laser beam to crystallize said amorphous Si, wherein said plastic substrate has light transmittance of 30 to 100% at an oscillation wavelength of said laser beam (please note that the Examiner takes the position that since Okumura teaches a plastic substrate comprising (PES) polyethersulfone {see paragraph [0100] of Okumura} the light transmittance is inherently 30 to 100% at a laser oscillation wavelength as disclosed on page 3 of Applicants disclosure).

4. Pertaining to claim 2, Okumura teaches the method of claim 1 for producing a substrate having a crystalline Si layer, wherein said amorphous Si layer has a thickness of 1 to 2,000 nm (see paragraph [0101] where Okumura teaches an amorphous silicon film having a thickness of 500 angstroms which is equivalent to 50 nanometers i.e., 50 nm).
5. Pertaining to claim 3, Okumura teaches the method of claim 1 for producing a substrate having a crystalline Si layer, wherein the oscillation wavelength of said layer beam is 140 to 450 nm (please note that Okumura teaches a xenon chloride XeCl light source which is well known to emit light in the ultraviolet wavelength see paragraph [0113]).
6. Pertaining to claim 4, Okumura teaches the method of claim 1 for producing a substrate having a crystalline Si layer, wherein said laser is an excimer laser (please see the rejection of claim 3 above).
7. Pertaining to claim 5, Okumura teaches the method of claim 1 for producing a substrate having a crystalline Si layer, wherein said plastic substrate is made of amorphous polyolefin or polyethersulfone (please see the rejection of claim 1 above).
8. Pertaining to claim 7, Okumura teaches a substrate having a crystalline Si layer produced by the method recited in claim 1.

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9. Pertaining to claim 8, Okumura teaches the substrate of claim 7 having a crystalline Si layer, wherein said plastic substrate is provided with an insulating thin film 2 having a thickness of 10 nm to 10 um on at least one surface.

10. Pertaining to claim 9, Okumura teaches a crystalline Si device comprising the substrate of claim 7 having a crystalline Si layer.

11. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. David Coleman whose telephone number is 571-272-1856.

The examiner can normally be reached on Monday-Friday 9:00 AM - 5:30 PM.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



W. David Coleman  
Primary Examiner  
Art Unit 2823

WDC